

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for initiating immediate transfer of packet data from a network server to a stand-alone mobile communication station over a digital radio communication network, wherein the mobile communication station is a stand-alone mobile communication station having independent display and processing capabilities, and wherein the method includes the acts of:

receiving an unsolicited message, which is sent to the mobile communication station from a network server using a message service provided by the digital radio communication network, said unsolicited message including a first packet data network address of said network server;

extracting the first packet data network address from said unsolicited message by way of an application executing on the stand-alone mobile communication station; and

establishing, by the application of the mobile communication station having a second packet data network address, a packet data protocol session between said mobile communication station and said network server using said first packet data network address,

whereby the network server is able to transfer packet data to the mobile communication station and the application using said packet data protocol session, the packet data being received at the stand-alone mobile communication station for display at the stand-alone mobile communication station, and

wherein the unsolicited message comprises a data structure that is formatted with a predefined number of data fields, each data field having a correspondingly predefined length, the data structure including:

a first field that contains a GPRS activation code which distinguishes the message from certain types of SMS messages and that indicates to the application that said message was initiated by the network server wishing to transfer the packet data to the mobile communication station,

a second field that contains an IP address comprising the first packet data network address of said network server from which the message was sent,

a third field that contains a port number of the network server to be used when establishing a TCP/IP connection with the network server,

a fourth field comprising a service indication field with data that defines a service to be initiated and that controls the presentation of a message at the stand-alone mobile communication station,

a fifth field comprising a ciphering key that is used to calculate a response to the SMS message,

a sixth field comprising a checksum,

a seventh field comprising a ~~includes a data field with data that indicates a~~ quality of service that the network server specifies that the stand-alone mobile communication station request from the communication network when using the packet data protocol session, and

an eighth field comprising a spare character field storing a text message referred to by the service indication field and having a size that is dependent upon a number of characters used by the first, second, third, fourth, fifth, sixth and seventh fields.

2. (Original) The method claimed in claim 1, wherein the message service comprises a Short Message Service.

3. (Original) The method claimed in claim 1, wherein the first packet data network address comprises an Internet Protocol or an X.25 protocol address.

4. (Previously Presented) The method claimed in claim 1, wherein said application performs the act of identifying the mobile communication station to a packet data service part of the digital radio communication network, if the stand-alone mobile communication station is not identified to that service.

5. (Previously Presented) The method claimed in claim 4, wherein the act of identifying the stand-alone mobile communication station comprises performing a GPRS attach toward a GSM network if the stand-alone mobile communication station is not attached.

6. (Previously Presented) The method claimed in claim 1, including the acts of:

 sending a request from the application to the digital radio communication network to activate a packet data service for use by the stand-alone mobile communication station if the stand-alone mobile communication station does not have such a packet data service activated;

 allocating, in a node within, or connected to, said digital radio communication network, in connection with activating the requested packet data service, a temporary packet data network address to the stand-alone mobile communication station; and

 transferring the temporary network address to the stand-alone mobile communication station and the application, which temporary network address constitutes said second packet data network address.

7. (Original) The method claimed in claim 6, wherein the request comprises a GPRS Packet Data Protocol (PDP) Context activation.

8. (Original) The method claimed in claim 6, wherein the temporary packet data network address comprises an Internet Protocol or an X.25 protocol address.

9. (Previously Presented) The method claimed in claim 4, wherein said application performs the acts of:

examining an activation code present in said unsolicited message received by the stand-alone mobile communication station; and

performing said act of identifying the stand-alone mobile communication station to the radio communication network only if an appropriate activation code was found in the unsolicited message during the examining act.

10. (Currently Amended) The method claimed in claim 4, wherein said application performs the acts of:

examining ~~[[a]]~~the service indication field in said unsolicited message received by the stand-alone mobile communication station; and

presenting ~~[[a]]~~the text message to a user of the stand-alone mobile communication station the presented message being based on ~~[[the]]~~ content of the service indication field ~~and describing the service that will be initiated.~~

11. (Previously Presented) The method claimed in claim 10, wherein the presented message comprises a text message on a display or a voice message over a loudspeaker.

12. (Previously Presented) The method claimed in claim 10, wherein said application further performs the acts of:

waiting for a reply to the presented message from the user of the stand-alone mobile communication station; and

continuing with, or aborting, said act of identifying the stand-alone mobile communication station to the digital radio communication network in dependence on the reply to the presented message.

13. (Original) The method claimed in claim 12, wherein the reply comprises an accept or a deny reply.

14. (Currently Amended) The method claimed in claim 1, wherein said application performs the acts of:

extracting ~~[[a]]~~the ciphering key from said unsolicited message received by the stand-alone mobile communication station; and

sending a message to the network server, which message includes a calculated response to the extracted ciphering key and an identification number associated with the stand-alone mobile communication station, whereby the network server is able to verify the identity of the stand-alone mobile communication station user.

15. (Previously Presented) The method claimed in claim 14, wherein the identification number associated with the stand-alone mobile communication station comprises a Mobile Station Integrated Services Digital Network (MSISDN) number.

16. (Currently Amended) A system comprising a stand-alone mobile device for facilitating immediate transfer of packet data from a network server to the mobile device over a digital radio communication network, including:

a transceiver having processing capabilities;

independent display means;

first receiving means for receiving an unsolicited message from a message service provided by the digital radio communication network, said unsolicited message including a first packet data network address of said network server;

extracting means for extracting the first packet data network address from said unsolicited message; and

packet data protocol means for establishing a packet data protocol session between said stand-alone mobile device and said network server using said first packet data network address, and for receiving packet data from the network server addressed to a second packet data network address, which second packet data network address is allocated to the stand-alone mobile device, the packet data being received at the stand-alone mobile device for display at the stand-alone mobile device,

wherein the unsolicited message comprises a data structure that is formatted with a predefined number of data fields, each data field having a correspondingly predefined length, the data structure including:

a first field that contains a GPRS activation code which distinguishes the message from certain types of SMS messages and that indicates to the application that said message was initiated by the network server wishing to transfer the packet data to the mobile communication station,

a second field that contains an IP address comprising the first packet data network address of said network server from which the message was sent,

a third field that contains a port number of the network server to be used when establishing a TCP/IP connection with the network server,

a fourth field comprising a service indication field with data that defines a service to be initiated and that controls the presentation of a message at the stand-alone mobile communication station,

a fifth field comprising a ciphering key that is used to calculate a response to the SMS message,

a sixth field comprising a checksum,

a seventh field comprising a ~~includes a data field with data~~ that indicates a quality of service that the network server specifies that the stand-alone mobile communication station request from the communication network when using the packet data protocol session, and

an eighth field comprising a spare character field storing a text message referred to by the service indication field and having a size that is dependent upon a number of characters used by the first, second, third, fourth, fifth, sixth and seventh fields.

17. (Previously Presented) The system claimed in claim 16, wherein the message service comprises a Short Message Service.

18. (Previously Presented) The system claimed in claim 16, wherein the a first packet data network address comprises an Internet Protocol or an X.25 protocol address.

19. (Previously Presented) The system claimed in claim 16, including means for identifying the mobile communication station to a packet data service part of the digital radio communication network if the stand-alone mobile device is not identified to that service.

20. (Previously Presented) The system claimed in claim 19, wherein the means for identifying comprises performing a GPRS attach towards a GSM network if the stand-alone mobile device is not attached.

21. (Previously Presented) The system claimed in claim 16, including:

transmitting means for sending a request to the digital radio communication network to activate a packet data service for use by the stand-alone mobile device if the stand-alone mobile device does not have such a packet data service activated; and

second receiving means for receiving a temporary packet data network address from the digital radio communication network in response to said request, which received temporary packet data network address constitutes said second packet data network address.

22. (Previously Presented) The system claimed in claim 21, wherein the request comprises a GPRS Packet Data Protocol (PDP) Context activation.

23. (Previously Presented) The system claimed in claim 21, wherein the a temporary packet data network address comprises an Internet Protocol or an X.25 protocol address.

24. (Currently Amended) A stand-alone mobile device containing a sequence of instructions for a microprocessor to perform the acts of:

causing the stand-alone mobile device to receive an unsolicited message from a message service provided by a digital radio communication network, said unsolicited message including a first packet data network address of a network server;

causing the stand-alone mobile device to extract the first packet data network address from said unsolicited message;

causing the stand-alone mobile device, to which a second packet data network address is allocated, to establish a packet data protocol session between said stand-alone mobile device and said network server using said first packet data network address; and

causing the stand-alone mobile device to receive packet data, addressed to the second packet data network address, from the network server via said packet data protocol session, the packet data being received at the stand-alone mobile device for display at the stand-alone mobile device,

wherein the unsolicited message comprises a data structure that is formatted with a predefined number of data fields, each data field having a correspondingly predefined length, the data structure including:

a first field that contains a GPRS activation code which distinguishes the message from certain types of SMS messages and that indicates to the application that said message was initiated by the network server wishing to transfer the packet data to the mobile communication station,

a second field that contains an IP address comprising the first packet data network address of said network server from which the message was sent,

a third field that contains a port number of the network server to be used when establishing a TCP/IP connection with the network server,

a fourth field comprising a service indication field with data that defines a service to be initiated and that controls the presentation of a message at the stand-alone mobile communication station,

a fifth field comprising a ciphering key that is used to calculate a response to the SMS message,

a sixth field comprising a checksum,

a seventh field comprising a ~~includes a data field with data that indicates a~~ quality of service that the network server specifies that the stand-alone mobile communication station request from the communication network when using the packet data protocol session, and

an eighth field comprising a spare character field storing a text message referred to by the service indication field and having a size that is dependent upon a number of characters used by the first, second, third, fourth, fifth, sixth and seventh fields.

25. (Previously Presented) The stand-alone mobile device claimed in claim 24, wherein the message service comprises a Short Message Service.

26. (Previously Presented) The stand-alone mobile device claimed in claim 24, wherein the digital radio communication network comprises a Global System for Mobile Communication (GSM) network providing a General Packet Radio Service (GPRS).

27. (Previously Presented) The stand-alone mobile device claimed in claim 24, wherein the first packet data network address comprises an Internet Protocol or an X.25 protocol address.

28. (Previously Presented) The stand-alone mobile device claimed in claim 24, performing the act of causing the stand-alone mobile device to identify itself to a packet data service part of the digital radio communication network, if the stand-alone mobile device is not identified to that service.

29. (Previously Presented) The stand-alone mobile device claimed in claim 28, wherein the act of causing the stand-alone mobile device to identify itself comprises performing a GPRS attach towards a GSM network if the mobile communication station is not attached.

30. (Previously Presented) The stand-alone mobile device claimed in claim 24, performing the acts of:

causing the stand-alone mobile device to send a request to the digital radio communication network to activate a packet data service for use by the stand-alone mobile device if the stand-alone mobile device does not have such a packet data service activated; and

causing the stand-alone mobile device to receive a temporary packet data network address from the digital radio communication network in response to said request, which received temporary packet data network address constitutes said second packet data network address.

31-34. (Cancelled)

35. (Previously Presented) The method claimed in claim 1, wherein the digital radio communication network comprises a Global System for Mobile Communication (GSM) network providing a General Packet Radio Service (GPRS).

36. (Previously Presented) The program storage device claimed in claim 16, wherein the digital radio communication network comprises a Global System for Mobile Communication (GSM) network providing a General Packet Radio Service (GPRS).

37-44. (Cancelled)

45. (New) The method as recited in claim 1, wherein the data structure is formatted according to the format of the data structure shown in Figure 3.